



Effect of Gender on The Knowledge of HIV and Aids Education and Sexual Behaviours of Secondary School Students in Obollo-Afor Education Zone of Enugu State

KEYWORDS

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ABSTRACT *This study sought to examine the effect of gender on HIV and AIDS education and sexual behaviours of secondary school students in Obollo-Afor education zone of Enugu State. One research question and one null hypothesis guided the study. Quasi-experimental design was adopted for the study. The population of the study comprised 2,853 SS II students in 38 public secondary students in the education zone. 285 SS II students formed the sample for the study. 30-item structured questionnaire was used to collect data from the respondents. The instrument was validated by three experts from University of Nigeria, Nsukka in the field of Education. Cronbach Alpha was used to determine the internal consistency of the instrument which yielded 0.83 coefficient value. Mean and standard deviation were used to answer the research question. Analysis of covariance (ANCOVA) was employed to test the null hypothesis. Findings showed that HAEP had more positive effects on the female students more than their male counterparts. The interaction effects between HAEP and gender was significant ($p > 0.05$). Conclusions were drawn based on the findings of the study.*

Introduction

HIV and AIDS was first identified in Nigeria in the early 1980s. Since then, cases of HIV and AIDS have been reported throughout the country, and the scale of the pandemic has been severe (National Agency for the Control of AIDS 2009). Nigeria is currently about 170 million people, but it is estimated that 11.6 million have been infected by human immune deficiency virus (HIV) since 1980s. About 7.7 million of them were women and children, about 800, 000 people have died of HIV and AIDS related causes, and about 400, 000 children have been orphaned (NACA, 2009). The statistics further indicated that about 2.8 million Nigerians are presently living with HIV and AIDS.

Research carried out by Ona (2012) also indicated that in urban areas, new infection rates have declined by about 45 percent. At one urban health clinic, for example, rates dropped from 29.5% in 2006 to 13.4% in 2009, the reduction being predominantly in the males aged 15 – 24 years (Ona, 2012). There is also evidence of change in risky sexual behaviours as a result of the knowledge of those risky and non-risky sexual behaviours that spread HIV and AIDS in the society as a result of HIV and AIDS education (Obikeze, 1997). Similarly, Ezedum (1998) reported a sharp increase in condom usage due to HIV and AIDS education.

However, rates of infection are still high especially on the females and children. Therefore there is serious need to increase effort to sustain and improve HIV and AIDS education. The impact of HIV and AIDS epidemic which has been felt across Nigeria has cost implication on social, economic, educational and health development of the individuals. HIV and AIDS has reduced the size of the labour force, the quantity and quality of land under cultivation has diminished; as a result, income and food security are threatened for a significant proportion of the population and social interaction among people reduced especially among people who are living with HIV and AIDS (PLWHA) due to stigma, discrimination and denial (Nwana, 2005). Infant mortality in some areas is increasing due to mother to child transmission of HIV and AIDS. A study conducted in Benue State by Ameh (1987) revealed that as adult mortality accelerates, the ability of the households to cope and even survive will be seriously compromised and children of such households are particularly at risk.

As the horror of HIV and AIDS is going on, the federal government and other international health agencies are not folding their hands watching it uncared for. One of the first important responses to HIV and AIDS crisis in Nigeria was the establishment of the National Advisory Committee on AIDS (NACA) in the early 1990s co-ordinated by the Federal Ministry of Health and supported by the World Health Organization, formal global programme on AIDS. However, NACA tackled HIV and AIDS mainly from a medical stand point, and the need to involve other sections became clear by the later part of 1990s. Since then, National response to fighting the spread of the disease has been a collective one. Government at all levels and other stakeholders have worked alongside other international bodies and agencies in responding to the pandemic. A particular important development was the federal government partnering with World Health Organization (WHO) to establish huge fund in the mid 1990s to fight the scourge of HIV and AIDS which involved various state governments instituting bodies and agencies that would access the fund for fighting the scourge of the disease down to the grass root level (Nwana, 2005).

Both NACA and various state agencies have led a number of key initiatives that have attempted improve government response to HIV and AIDS pandemic. Some of the key initiatives included: wide spread HIV and AIDS education campaigns, provision of drugs to treat opportunistic infections, encouraging NGOs and other voluntary agencies to care for children orphaned by HIV and AIDS among others. Despite these efforts by government to reduce the spread of the disease, the disease continued to spread like whirlwind. Research conducted by Madunagu (2006) indicated that HIV and AIDS spread easily in Nigeria environment mainly because most Nigerian cultures permit extramarital sex as a norm, especially among the males. The author argued that most cultures allow adult to have multiple sex partners and adolescents to indulge in pre-marital sex without strict sanction. Ogbuagu and Agbo (2002) also observed that students in Nigerian secondary schools amazingly indulge in premarital sexual activities which expose them to sexually transmitted diseases (STDs). Due to the observations of those researchers, it becomes imperative that the knowledge of risky and non-risky sexual behaviours be given to the students and adolescents who may be mostly at risk of contracting HIV and AIDS. The knowledge would enable them to avoid those

risky sexual behaviours that may expose them to contract the virus and disease.

Heterosexual behaviour according to Anekwe (2009) constitute more than 85% means through which HIV and AIDS is transmitted. Sexual behaviours involve sexual actions with another person (Kingsey and Pomeroy, 1948). The authors as well stated that some sexual behaviours are shared with either opposite sex or same sex; while others are done alone. Some sexual behaviours according to Rathmus (2003) are risky while others are healthy or non-risky. The author stated that heterosexuality, homosexuality, lesbianism, premarital sex among others exacerbates HIV and AIDS transmission. Students in secondary schools need HIV and AIDS education to avoid those risky sexual behaviours that exacerbate HIV and AIDS transmission. HIV and AIDS education according to Agujiobi (2003) refers to the use of informative mechanisms such as seminars, workshops, symposia, campaigns, lectures and others to influence knowledge attitudes and behaviours towards healthier life style. The essence of HIV and AIDS education is that the disease has no known cure as at now and it spreads at very rapid rates, killing millions of adult and children. Women and children feel the impact of HIV and AIDS pandemic more than men. This is because Kenneth (2006) stated that HIV and AIDS pandemic have preferential option for the vulnerable group in the society. The vulnerable groups in the society are the women and children. It is widely observed that females contract HIV and AIDS than the males because of the anatomy of their physique and they have no power to negotiate for safe sexual inter course. Another reason for females' vulnerability to HIV and AIDS according to the author was that some women are forced into sex work or form temporal partnership to barter sex for economic survival and social protection. Apart from the female open sex organs, other cultural variables such as subordination, oppression, intimidation, inequality among others enable females to contract HIV and AIDS and other STDs more than the males (Anekwe, 2009). The above scenario provides the basis for hypothesizing the relation between gender and HIV and AIDS transmission. The above scenario as well provides the basis for asking which of the gender (males or females) responds more favourably to HIV and AIDS education packages.

Gender refers to the sum of cultural values, attitudes, roles practices and characteristics based on sex (Mckay, 2004). In this work gender is defined as the state of being male or female and or social interpretation of ones biological sex. HIV and AIDS education need to be given to the secondary school students in Obollo-Afor Education of Enugu State with a view to enable one determine which of the gender respond favourably to the education packages.

Research Question

This research question guided the study. What is the effect of gender on knowledge of HIV and AIDS education and sexual behaviours of secondary school students?

Hypothesis: The null hypothesis below guided the study which was tested at the 0.05 level of significance.

Ho: There is no significant difference in the mean sexual knowledge scores of male and female students' exposure to HIV and AIDS education packages.

Methods

Quasi-experimental design was used for the study. Specifically, it is a non-randomized pretest, posttest design. The study was carried out in Obollo-Afor education zone of Enugu State, Nigeria. The population of the study comprised all the SS II students in 38 public secondary schools in Obollo-Afor Education Zone. There were 2,853 SS II students in Obollo-Afor Education Zone as at 2013/2014 school year, (Post Primary School Management Board Enugu 2014).

Sample and Sampling Technique: The sample for the study consisted of 285 respondents selected through multi-stage sampling procedure. In the first stage, purposive sampling technique was used to select 4 mixed-sex schools from 38 public secondary schools, of which two mixed sex schools each were selected from the urban and rural secondary schools respectively. Second stage, eight intact SS II classes from four mixed-sex schools were selected, of which four classes each formed the experimental and control groups. The two groups make up 285 SS II students. 152 SS II students formed the experimental group while 133 students formed the control group. In those two groups 149 students were females while 136 were males.

Instrument for Data Collection: The instrument used for data collection was a structured questionnaire titled HIV/AIDS education and sexual knowledge questionnaire (HAE-ASKQ). The 30-item instrument consisted of section A and B. Section A consisted of background information about the respondents while section B sought information on the sexual knowledge the students have that may or may not make one vulnerable to HIV and AIDS. The instrument was four-point rating scale with Very Strongly Agree (VSA) 4 points, Strongly Agree (SA) 3 points, Agree (A) 2 points and Disagree (D) 1 point for positive scoring. For items on the negative response, the scores will be applied in the reverse order. Decision bench mark was 2.5 and items with 2.5 and above were regarded as having more knowledge of risky and non-risky sexual behaviours while lower scores indicated poor knowledge of risky and non-risky sexual behaviours that spread HIV and AIDS in the society.

The instrument was face validated by Face experts, one in Sociology of Education, one in Physical and Health Education and the other in the Measurement and Evaluation, all of who are from the University of Nigeria, Nsukka. The reliability of the instrument was done using Cronbach Alpha which yielded a value of 0.83.

Experimental Procedure: The study was carried out in the second term of 2013/2014 academic session. 4 mixed sex schools were used for the study. Before the experiment commenced, the schools were assigned to either experimental or control group by balloting. On the first day of the experiment, SKQ was administered as pretest to the two groups in each of the sampled schools. The experimental group was treated for 4 weeks lesson on HIV and AIDS education packages (HAEP). The control group was taught selected topics from SS II biology scheme of work. At the end of the four weeks' lesson the two groups were given posttest questionnaire to once again test their knowledge of those risky and non-risky sexual behaviours that spread HIV and AIDS in the society.

Control of Extraneous Variables: Some steps were taken to control some extraneous variables which if left may cause bias for the study. Some of these steps were: use of statistical solutions as covariates to take care of non-equivalent of the two groups, rearrangement of the questionnaire items to reduce bias on the respondents as they read the items in the questionnaire, use of subjects/respondents from different schools to avoid subject interactions among others.

Administration of the Instrument: The questionnaire was administered to the respondents in two stages – pretest and posttest. During the first stage, HAEASKQ were administered to the 285 SS II students sampled for the study. After the treatment session, the HAEASKQ were administered to the respondents as posttest. The researcher with the aid of two research assistants administered the pretest and posttest which were later subjected to analysis to obtain the results.

Method of Data Analysis: The data collected were analyzed using mean and standard deviation for answering the research question. The hypothesis was tested at 0.05 level of

probability using analysis of covariance (ANCOVA). Analysis of covariance was used because the subjects were not randomly composed rather they were selected.

Result:

Research Question One: What is the effect of HIV and AIDS education on secondary school students' sexual knowledge based on gender? The table below indicated mean and standard deviation of students' pretest, posttest scores by HIV and AIDS education based on gender.

Gender of the students		Pretest	Posttest
Females	Mean	2.31	4.61
	N	149	149
	St. deviation	0.88	0.85
Males	Mean	2.15	3.44
	N	136	136
	St. deviation	0.74	0.74
Total	Mean	2.16	4.02
	N	285	285
	St. deviation	0.81	0.81

Data on the table indicated that the posttest treatment mean sexual knowledge score of the female students was 4.61 with a standard deviation of 0.85 while their pretest mean sexual knowledge score was 2.37. The result indicated that HIV and AIDS education packages (HAEP) had effects on the female students' sexual knowledge. The male students had a post treatment mean sexual knowledge score of 4.61; their pretest mean sexual knowledge score was 2.16. There was an improvement in the mean sexual knowledge score of the male students after being exposed to HAEP. Going through the mean sexual knowledge score of the two groups of students, the female students had better knowledge of those risky and non-risky sexual behaviours that spread HIV and AIDS in the society than their male counterpart. The standard deviation indicated that the respondents' scores were tightly clustered around their mean. This signifies closeness in their responses to the items of the questionnaire.

Hypothesis (Ho₁): There was no significant difference in mean sexual knowledge scores of male and female students who were taught HIV and AIDS education packages.

Table 2: ANCOVA of secondary school students' post treatment sexual knowledge scores according to HIV and AIDS education based on gender

Source	Type III sum of squares	Df	Mean squares	F-cal	F-crit	Sign
Corrected model	1485.578a	20	185.670	320.904	-	.000
Intercept	1545.960	2	1545.960	2671.914	-	.000
Pretest	12.822	2	13.122	22.158	-	.336
Treatment	1451.352	2	1451.352	2508.408	3.68	.000
Location	10.824	2	10.824	4.092	3.68	.447
Gender	0.630	2	0.630	4.118	3.68	.820
Treatment location	0.036	2	0.036	4.060	3.68	.920

Treatment gender	1.290	2	1.290	4.118	3.68	.542
Location gender	0.240	2	0.240	4.118	3.68	.793
Treatment location and gender	0.126	2	0.126	4.222	3.68	.847
Error	923.436	283	3.474	-	-	-
Total	19536.000	285	-	-	-	-
Corrected total	2408.976	283	-	-	-	-

Data on the table indicated that the treatment gender F-calculated value was 4.12 at 2 degree of freedom for 0.05 level of significance and 283. The F-critical ratio was 3.68. Since the F-calculated value was greater than the F-critical ratio, the null hypothesis of male and female sexual knowledge scores of no significant has to be rejected. This was because there was significant difference in the performance of the male and female students after being exposed to HAEP.

Discussion of Results: The findings of this study were discussed in line with the research question and hypothesis tested in the study. The result of the study indicates that HIV and AIDS education package had significant effects on the male and female students who received HAEP. However, the effect was more on the female students than the males. Both sexes displayed low knowledge of risky and non-risky sexual behaviours during the pretest. Posttest scores of both gender after treatment indicated significant improvement on the knowledge of those risky and non-risky sexual behaviours. This was in agreement with Ezedum (1998) when the author stated that female students were more inclined to taking more precautionary measure against risky sexual behaviours than the male students. Ogbuagu and Agbo (2002) stated that male students are more involved in heterosexual networking in mixed sex schools and urban areas than the female students.

Recommendations: The study recommended among other things:

- (1) HIV and AIDS education packages and other life building skills should be intensified in Nigerian secondary schools.
- (2) The result of the study showed that the females responded more positively to the risky and non-risky sexual behaviours that spread HIV and AIDS in the society than the males. The study therefore recommended an individualized approach to the teaching of HIV and AIDS education among the students especially the males. Establishment of centres in Enugu State where students who are living with HIV and AIDS would be treated freely is also recommended.

Conclusion: Based on the result of this study, it seems that HIV and AIDS education packages had appreciable significant effects on secondary school students' sexual knowledge. However, female students showed more positive response to the risky and non-risky sexual activities that spread HIV and AIDS in the society.

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